

Please accept this application

"Connecting Western

North Carolina"

2007 FCC Rural Health

Care Pilot Program Application

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Submitted by

Western Carolina University

Cullowhee, North Carolina

in partnership with

Eastern Band of the Cherokee Indians

Cherokee, North Carolina

and

Jackson County Department

of Public Health

Sylva, North Carolina

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Text Box: EXECUTIVE SUMMARY

Text Box: A. RESPONSIBLE ORGANIZATION

Hurricane Katrina and September 11, 2001 moved emergency preparedness and response to the forefront of American thinking. Unfortunately, early political and public attention focused on the needs of urban areas leaving the needs of America's rural communities largely unaddressed. Rural areas, such as those in western North Carolina, are home to nearly 59 million US citizens, the vast majority of whom are underserved and underprivileged. Emergency response challenges in times of crises poignantly remind us of what these rural areas and their residents also face every day, not just during emergencies. For example, the daily challenge of health care is exacerbated during times of crisis. Whether the crisis is local in

nature,
regional or national, the every day demands and needs grow exponentially under the weight of crisis.

Rural health care providers share needs similar to their urban counterparts but also fall victim to situations unique to the rural environment. For instance, rural health care providers continue to lack access to the broadband facilities needed to support the types of advanced telehealth applications, like telemedicine, that are so vital to bringing medical expertise and the advantages of modern health care technology to these isolated areas of the country. Many of these real-time telehealth applications require a dedicated broadband network that is more reliable and secure than the public Internet and almost entirely unavailable to rural communities.

The Federal Communication Commission's Rural Health Pilot Program is an appreciated effort toward remedying this. Increasing broadband connectivity among health care providers at the national, state and local levels provides vital links for telehealth and telemedicine solutions, disaster preparedness and emergency response and would likely facilitate the President's goal of implementing electronic medical records nationwide. These are preeminent concerns of Western Carolina University (WCU), the Eastern Band of the Cherokee Indians (EBCI) and western North Carolina, in general.

Researchers at WCU undertook a regional study related to preparedness response in western North Carolina as well as health care delivery through

telehealth and telemedicine mediums. These research efforts will be brought to this initiative to further ensure the success of "connecting Western North Carolina."

Additionally, in an effort to prepare comprehensive response protocols, several counties in Western North Carolina, and the Eastern Band of Cherokee Indians are working together on regional planning. After meeting informally, the Health Departments from the EBCI, Swain, Jackson, and Graham counties have decided to meet regularly to collaborate and integrate their all-hazards response plans. Other counties in the region including, Haywood, Cherokee, Clay and Macon have also been contacted and invited to join in what is being called the Western North Carolina Preparedness Committee. The idea is to compare plans, share resources, and provide support to the larger community during any incident that creates a public health crisis. Vickie Blythe, Director of Operations for the EBCI Health Department said, "We recognize that communities can be quickly overwhelmed during an incident, and we want to be ahead of that by preplanning with the surrounding communities." A schedule was developed to meet at least once a month through June of 2007, when the committee will evaluate its progress and prioritize the next steps. Again, we propose to fold these efforts into the overall plan for the FCC's Rural Health Care Pilot Program, increasing the success of this proposed project.

Text Box: 1. RESPONSIBLE ORGANIZATION

The organization responsible both legally and financially for the conduct of activities supported by the pilot funding will be Western Carolina University located in Cullowhee, North Carolina.

Text Box: 2. GOALS AND OBJECTIVES

Broadband has enabled health care providers to vastly improve access to quality medical services in remote areas of the country. Among other things, telehealth applications allow patients to access critically needed

medical specialists in a variety of practices, including cardiology, pediatrics, and radiology, without leaving their homes or their communities.

Using video feeds over broadband and real-time patient information, intensive care doctors and nurses can monitor critically ill patients at

multiple locations around the clock. Using this technology, a single medical professional is able to administer services to over a hundred patients, while cutting skyrocketing medical costs by shortening average hospital stays and reducing the need for additional tests and treatments.

The benefits of these technologies are particularly apparent in underserved areas of the country, like those in western North Carolina, that may lack access to the breadth of medical expertise and advanced medical technologies available in other areas.

Generally, it is our primary goal to enhance public and non-profit health care providers' access to advanced telecommunications and information services. We hope to provide useful information as to the feasibility of revising the Commission's current RHC rules in a manner that best achieves the objectives set forth by Congress. We also intend to provide an affordable rate for the services necessary for the provision of telemedicine and instruction relating to such services.

Additionally, WCU in partnership with EBCI and the Jackson County Department of Health intends to improve access to telecommunications and information services on the Reservation and at off-reservation clinics, serviced by the EBCI and providing health care services to members of the Tribe. The Commission recognizes that the telecommunications penetration rate on many tribal lands falls far below the national average. Members of EBCI are further challenged by the remoteness and the mountainous terrain. The Commission's Pilot Program will assist us in promoting available culturally compliant health care to all members of the EBCI.

More particularly, we intend to connect outlying tribal health clinics to the main health care system at the EBCI main hub. This includes both the EBCI Health and Medical Division and the Cherokee Hospital. The Health and Medical Division provides over 23 programs to the outlying clinics. This requires weekly visits and over two (2) hours of travel time by staff and physicians, time that would be more efficiently used delivering the required services.

The Cherokee Hospital also services the Snowbird Clinic in remote Graham County. Due to the remoteness and the terrain, Snowbird is home to the more traditional Cherokee community. It also poses the greatest challenges in

the delivery of health care. Connecting this clinic would be an immeasurable success in many ways.

Yet another priority through this initiative is to provide a medium through which

health care providers can both obtain and become exposed to culturally competent health care for members of EBCI, whether they reside on the reservation or not. EBCI and WCU recently celebrated the official beginning

of the Culturally Based Native Health Program (CBNHP). In part, the collaboration will educate health professionals about the long and complicated relationship between American Indians and the federal government; inform health care providers of the unique nature of tribal health policy and related issues; and provide cultural awareness of tribal

protocol involving patients of various ages, gender, degrees of acculturation, geographical upbringing, and expectations. Cultural expertise will be provided by tribal members who will pair with WCU faculty

members in developing distance education opportunities and a Cherokee/Native

American Studies Health Certificate Program. The value of the Commission's

Pilot Program to this collaborative effort begun in August 2006 is apparent.

The mission of the Cherokee/Native American Studies Health Certificate Program is to provide culturally competent training for health professionals

who serve American Indian populations, particularly in the South and East.

We accomplish this through 1) responding to the voices of Native health care

administrators/practitioners in developing needed courses to serve their

populations, 2) collaborating with Native clinicians, administrators, community members and scholars to develop curriculum incorporating Native voices, 3) and partnering with Native communities to provide opportunity for application of training.

- . Classes will be developed and/or co-instructed with Native representatives

- . Cherokee guest lecturers to be included in lecture-format classes

- . Some classes will be offered in the Cherokee community

- . Most classes will be offered on-line/distance learning to assist those working full-time and/or who live in other regions

- . Course content to be approved by Eastern Band of Cherokee Indians (EBCI) designated representatives knowledgeable in topic areas

- . Two more Tribal-specific courses (Tribal Culture/History and Tribal Patient Protocol) will be developed by individuals to be determined by USET Tribes for substitution for corresponding Cherokee specific courses

Western Carolina University sees the development of this certificate program

as an opportunity to serve Native populations and encourage their collaboration in the development of quality instruction for health care providers. This program is a direct response to the needs and concerns voiced by Indian health professionals. It is not intended as coursework that emphasizes the "Western" models of intervention, care, prevention, and maintenance, but an Indigenous perspective that may overlap or fuse into those traditional models of health care.

The following chart indicates the suggested courses and foci as requested by EBCI health professionals and administrators. The two "core" courses in Native American Studies Theory & Application have already been developed as have the courses: Issues in Indian Health, Cherokee Ethnobiology and Traditional Medicine, Conflict Resolution: Culture & Management, and Cherokee History. The next priority will be the development of courses for the Behavioral Health foci. Several counselors from the EBCI have been contacted for these course proposals.

Four Foci for Certificate Program Electives [Choice of Four Courses]

1) Indian Health Care Administration

2) American Indian

Culture & History

3) American Indian

Behavioral Health

4) American Indian

Clinical Care

Conflict Resolution: Culture & Management*

Cherokee Ethnobiology & Traditional Medicine*

Counseling Approaches & Theory with American Indian Clients

Issues in Indian Health*

Indian Personnel Management

Cherokee History and Culture*

Co-occurring Disorders & American Indian Adolescents

Caring for Elders

Funding & Finance for Indian Health Programs

Cultural Congruent Patient Care & Tribal Protocol

Native Americans and Alcohol/Tobacco Use

Stress & Chronic Disease

Indian Health Law, Policy, and Self Determination

History of Indian Health Care & Services

Culture and the Evolution of Western Psychology

Primary Care of American Indian Patients

Another objective of this proposal is related to emergency preparedness. The HHS Agency for Healthcare Research and Quality (AHRQ), who jointly administers the Medicare Modernization Act with CMS, is working together with the HHS Office of Public Health Emergency Preparedness as well as sister agencies-including the Centers for Disease Control and Prevention and the Health Resources and Services Administration-on a number of natural and/or man-made disaster response and preparedness initiatives at the federal, state, and local levels. In keeping with the framework

prescribed
by the HHS Office of the National Coordinator for Health Information
Technology (ONCHIT), AHRQ has a particular mandate to enhance and
reinforce
linkages between the personal health care delivery system and the public
health infrastructure. Consistent with these initiatives, both WCU and
EBCI
have undertaken efforts toward improving emergency response efforts in
western North Carolina. The Emergency Management Program in Applied
Criminology at WCU working with the EBCI intends to leverage this
project to
further assess the health care needs and response challenges during
times of
crisis. Both hope to improve emergency preparedness in the more
vulnerable
populations in the rural areas of western North Carolina.

Text Box: 3. NETWORK COSTS

Proposed Annual Budget

Construction Cost Estimates:

Labor	\$1,700,000
Materials	285,000
Supervision	150,000
Engineering	125,000
Splicing	100,000
Study	47,000
Permits	10,000
Subtotal	\$2,417,000

Internet2 Estimates (one-time charges/monthly recurring charges):

Core Routers	\$50,000
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\$ 900

End-User-

Ethernet equip. connect. 40,000
2,500

Back haul of I-2 service 10,000
8,000

10Mbps Ethernet connect. 30,000 20,000

100Mbps I-2 svc. Shared 15,000 12,000

Subtotal \$145,000
\$43,400

Other Cost Estimates:

Web Communication Platform
\$187,000

Software
162,000

Contractors: Network Design/Study
15,000

Evaluators
84,000

System Integra